TESAA-D

TESTER, ELECTRICAL SAFETY

1. GENERAL. This procurement requires an electrical safety tester designed to test for hazardous shock potentials on two and three conductor portable electrical equipment.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of testing portable electrical equipment for shock hazard conditions within the minimum specifications identified below.

3.1 Ground continuity test. The equipment shall provide a ground continuity test to verify ground system operation in portable electrical equipment.

3.1.1 Maximum test voltage. 7 Vac at 60 Hz.

3.1.2 Failure threshold. A safety interlock to prevent further testing shall be provided when the ground circuit resistance exceeds 1.5 ohms.

3.1.3 Maximum test current. 30A.

3.2 Leakage current test. The equipment shall be capable of measuring the current that would result from the ground conductor being severed or opened.

3.2.1 Leakage current test range. 0 to 10 mA.

3.3 Insulation breakdown test. The equipment shall provide an insulation breakdown test to verify the insulation on portable electrical equipment.

3.3.1 Test voltage. 500 Vac maximum.

3.3.2 Maximum short circuit current. 12.6 mA.

3.3.3 Leakage current trip. 5 mA.

3.3.4 Failure indicator. The equipment shall provide a visual indication when insulation breakdown occurs.

3.4 Voltage and current rating. The instrument shall provide an operational check to verify voltage and current ratings of equipment under test to at least 120 Vac, 60 Hz, 15A.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 2000W. The equipment shall meet all specifications herein when supplied from shipboard power systems as outlined in MIL-STD-1399 Section 300A and typical 115 Vac commercial power.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. Requests for approving the use of lithium batteries, including those encapsulated in integrated circuits, shall

be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.

4.4 Receptacle. The equipment shall provide a 3-wire 15A isolated ground receptacle for equipment under test.